

## DESCRIPTION

## ACTIVE MATRIX DISPLAY DEVICES

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5 This invention relates to active matrix electro-optic display devices comprising an array of pixels addressed via sets of address conductors, and particularly to active matrix liquid crystal display devices (AMLCDs). The invention is concerned more especially with active matrix display device circuit arrangements and methods of operation for addressing groups of two or more sub-pixels within the array.

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Conventionally, AMLCDs comprise a row and column array of pixels which are connected to, and addressed via, sets of row and column address conductors. The pixels of one row are usually connected to the same row address conductor while each pixel in the row is connected to a respective, and different, column address conductor. An example of such a device, its method of operation, and its method of fabrication are described in US-A-5130829 to which reference is invited and whose contents are incorporated herein.

20 Such display devices are widely used in a variety of products, including for example lap-top computers, PDAs and mobile phones and other portable electronic equipment. Full colour display devices are now becoming more common in relatively small products such as mobile phones. Also, for portability, these products tend to rely on batteries for their power.

25 It is desirable for display devices intended for use in mobile phone applications and the like to have a very low power consumption in order to conserve battery power. However, there is increasing interest in integrating video functions into mobile devices which means that they must also have good grey scale capability. It is difficult to satisfy both of these requirements at the same time and therefore display devices have been proposed which can  
30 be operated in two different modes, a relatively high power, full grey scale, mode and a low power mode which has reduced grey scale capability.